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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

4

Application Number

10/524,381

Filing Date

2/14/05

First Named Inventor

Hawley

Art Unit

NA

Examiner Name

NA

Attorney Docket Number

IMM-002US

**ENCLOSURES (Check all that apply)**☐

Fee Transmittal Form

☐

Fee Attached

☐

Amendment/Reply

☐

After Final

☐

Affidavits/declaration(s)

☐

Extension of Time Request

☐

Express Abandonment Request

☒

Information Disclosure Statement

☐

Certified Copy of Priority Document(s)

☐Reply to Missing Parts/  
Incomplete Application☐Reply to Missing Parts  
under 37 CFR 1.52 or 1.53☐

Drawing(s)

☐

Licensing-related Papers

☐

Petition

☐Petition to Convert to a  
Provisional Application☐Power of Attorney, Revocation  
Change of Correspondence Address☐

Terminal Disclaimer

☐

Request for Refund

☐

CD, Number of CD(s) \_\_\_\_\_

☐ Landscape Table on CD☐

After Allowance Communication to TC

☐Appeal Communication to Board  
of Appeals and Interferences☐Appeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)☐

Proprietary Information

☐

Status Letter

☒Other Enclosure(s) (please identify  
below):**Remarks**

- \* PTO 1449 Form
- \* Copies of 18 references
- \* Postcard

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name

Keown &amp; Associates

Signature

Printed name

Joseph C. Zucchero

Date

May 17 2005

Reg. No.

55,762

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

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5/17/05

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant:** Robert J. Hawley  
**Serial No.:** 10/524,381  
**Filed:** February 14, 2005  
**Entitled:**  $\alpha$ (1-3)-Galactosyltransferase Null Cells, Methods of  
Selecting and  $\alpha$ (1-3)-Galactosyltransferase Null Swine  
Produced Therefrom  
**Examiner:** NA  
**Group Art Unit:** NA  
**Attorney Docket No.:** IMM-002US (1004/003)

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Applicant and his attorney are aware of the following publications and information listed on the attached PTO Form 1449, and in accordance with 37 C.F.R. §1.97 hereby submit these publications for the Examiner's consideration.

Applicant further states that identifier C6 is a book which is too voluminous to enclose herewith.

This submission does not represent that a search has been made and does not constitute an admission that the listed documents are material to patentability or that the listed documents are prior art. If it should be determined that any of the listed documents constitute "prior art" under United States law, Applicants reserve the right to present to the Office relevant facts and law regarding the appropriate status of such documents.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits and is therefore submitted as both timely and proper. Therefore, no fees are believed to be due.

Respectfully submitted,

Date:

May 17 2005

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Subt. Form PTO-1449

**INFORMATION DISCLOSURE IN AN APPLICATION**

(Use several sheets if necessary)

Docket Number

IMM-002US1

Application Number

10/524,381

Applicant

Hawley

Filing Date

August 13, 2003

Group Art Unit

NA

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	IDENTIFIER	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A1	5,821,117		Sandrin et al.			
	A2	6,166,288		Diamond et al.			
	A3	6,331,658		Cooper et al.			
	A4	5,849,991		D'Aspice et al.			
	A5	6,153,428		Gustaffson et al.			
	A6	6,413,769					

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL	IDENTIFIER	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	B1	WO 01/88096		PCT				
	B2	WO 97/16064		PCT				
	B3	WO 95/28412 A1		PCT				

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

EXAMINER INITIAL	IDENTIFIER	
	C1	Evans, R.W., "Coming to Terms with Reality: Why Xenotransplantation is a necessity", Xenotransplantation, J.L. Platt, Ed., ASM Press, Wash., DC, 29-51 (2001).
	C2	Lambrigts et al., "Discordant Organ Xenotransplantation in Primates", Transplantation, 66(5):547-561 (1998).
	C3	Costa et al., "Expression of the Human 1,2-Fucosyltransferase in Transgenic pigs Modifies the Cell Surface Carbohydrate Phenotype and Confers Resistance to Human Serum-Mediated Cytolysis", FASEB J., 13:1762-1773 (1999).
	C4	Miyagawa et al., "Remodeling of the Major Pig Xenoantigen by N-Acetylglucosaminyltransferase III in Transgenic Pig", J. Biol. Chem., 276(42):39310-39319 (2001).
	C5	Thall et al., "Oocyte Gal $\alpha$ 1,3Gal Epitopes Implicated in Sperm Adhesion to the Zona Pellucida Glycoprotein ZP3 are Not Required for Fertilization in the Mouse", J. Biol. Chem., 270(37):21437-21440 (1995).
	C6	Park et al., Anim. Biotech., In Press (2001).
	C7	Dai et al., "Targeted Disruption of the $\alpha$ 1,3-Galactosyltransferase Gene in Cloned Pigs" Nature Biotechnol., 20(3):251-255 (2002).
	C8	Lai et al., "Production of $\alpha$ -1,3-Galactosyltransferase Knockout Pigs by Nuclear Transfer Cloning" Science, 295:1089-1092 (2002).
	C9	Bondioli et al., "Cloned Pigs Generated From Cultured Skin Fibroblasts Derived From a H-Transferase Transgenic Boar", Mol. Reproduc. Dev., 60:189-195 (2001).
	C10	Sachs et al., "Transplantation in Miniature Swine", Transplantation, 22(6):559-567 (1976).
	C11	Nozawa, S. et al., "Characteristics of Immunoglobulin Gene Usage of the Xenoantibody Binding to ...." Transplantation, 72(1):147-155 (2001).
EXAMINER:		DATE CONSIDERED:
EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in		

conformance and not considered. Include copy with next communication to Applicant.

Subt. Form PTO-1449  <b>INFORMATION DISCLOSURE IN AN APPLICATION</b>  (Use several sheets if necessary)	Docket Number  IMM-002US1	Application Number  10/524,381
	Applicant  Hawley	
	Filing Date  August 13, 2003	Group Art Unit  NA

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL	IDENTIFIER	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL	IDENTIFIER	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

EXAMINER INITIAL	IDENTIFIER	
	C12	Ayares, D. et al., "Cloning Pigs Deficient in Alpha 1,3 Galactosyltransferase" Graft, 4(1):80-82 (2001).
	C13	Gock, H. et al., "Deleting the Gal Epitope from the Donor Pig" Graft, 4(1):76-77 (2001).
	C14	Miyagawa, S. et al., "Masking and Reduction of the Galactose-Alpha 1,3-Galactose (alpha-Gal) Epitope, the Major Xenoantigen in Swine, by the Glycosyltransferase Gene Transfection", Biochemical and Biophysical Research Communications, 264:611-614 (1999).
	C15	Sao, H. et al., "A New Marrow T Cell Depletion Method Using Anti-CD6-Monoclonal Antibody-Conjugated Magnetic Beads and its Clinical Application for Prevention of Actue Graft-vs.-Host Disease in Allogeneic Bone Marrow Transplantation: Results of a Phase I-II Trial", International Journal of Hematology, 69:27-35 (1999).
	C16	Polejaeva, I.A. et al., "Cloned Pigs Produced by Nuclear Transfer from Adult Somatic Cells", Nature, 407:86-90 (2000)
	C17	Onishi, A. et al., "Pig Cloning by Microinjection of Fetal fibroblast Nuclei", Science, 289:1188-1190 (2000)
	C18	Bethausen, J. et al., "Production of Cloned Pigs from In Vitro Systems", Nature Biotechnology, 18:1055-1059 (2000)
	C19	McCreath, K.J. et al., "Production of Gene-Targeted Sheep by Nuclear Transfer From Somatic Cells", Nature, 405:1066-1069 (2000)

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy with next communication to Applicant.